

EXHIBIT B



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Perspective

Flattening the Curve for Incarcerated Populations — Covid-19 in Jails and Prisons

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Because of policies of mass incarceration over the past four decades, the United States has incarcerated more people than any other country on Earth. As of the end of 2016, there were

nearly 2.2 million people in U.S. prisons and jails.¹ People entering jails are among the most vulnerable in our society, and during incarceration, that vulnerability is exacerbated by restricted movement, confined spaces, and limited medical care. People caught up in the U.S. justice system have already been affected by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), and improved preparation is essential to minimizing the impact of this pandemic on incarcerated persons, correctional staff, and surrounding communities.

Populations involved with the criminal justice system have an increased prevalence of infectious diseases such as HIV and hepatitis C virus (HCV) infections and

tuberculosis. Disparities in social determinants of health affecting groups that are disproportionately likely to be incarcerated — racial minorities, persons who are unstably housed, persons with substance use disorders or mental illness — lead to greater concentrations of these illnesses in incarcerated populations. Yet implementation of interventions to address these conditions is often challenging in correctional settings owing to resource limitations and policy constraints. Therefore, comprehensive responses that straddle correctional facilities and the community often need to be devised.

For example, HCV, which is the most prevalent infectious disease in incarcerated populations,

is most commonly spread through injection drug use. Transmission can be reduced using measures known to reduce high-risk behaviors, such as opioid agonist therapy and syringe exchange. Although much of the country has yet to implement these strategies in correctional settings, managing transitions in care to and from the community and providing such services to people after incarceration has a large impact. Similarly, we have learned that controlling infections such as HIV and HCV in correctional settings can have positive effects both in these settings and on surrounding communities, as a form of treatment as prevention.

Highly transmissible novel respiratory pathogens pose a new challenge for incarcerated populations because of the ease with which they spread in congregate settings. Perhaps most relevant to the Covid-19 pandemic, the 2009 H1N1 influenza pandemic

exposed the failure to include jails in planning efforts. By the spring of 2010, vaccine was plentiful, yet most small jails never received vaccine, despite the presence of high-risk persons, such as pregnant women, and the increased risk of transmission among unvaccinated persons who spent time detained in close proximity to one another.²

“Social distancing” is a strategy for reducing transmission and “flattening the curve” of cases entering the health care system. Although correctional facilities face risks similar to those of community health care systems, social distancing is extremely challenging in these settings. Furthermore, half of all incarcerated persons have at least one chronic disease,³ and according to the U.S. Department of Justice, 81,600 are over the age of 60, factors that increase the risk of poor outcomes of infection. With limited ability to protect themselves and others by self-isolating, hundreds of thousands of susceptible people are at heightened risk for severe illness.

To date, the Federal Bureau of Prisons and certain states and municipalities have opted to suspend visitation by community members, limit visits by legal representatives, and reduce facility transfers for incarcerated persons. To reduce social isolation and maintain a degree of connectedness for incarcerated people, some correctional systems are providing teleconferencing services for personal and legal visits. Irrespective of these interventions, infected persons — including staff members — will continue to enter correctional settings. By March 14, some U.S. correctional staff members had tested posi-

tive for SARS-CoV-2, and the first Covid-19 diagnosis in a detained person was announced on March 16. A recent SARS-CoV-2 outbreak among cruise-ship passengers and crew in Yokohama, Japan, provides a warning about what could soon happen in correctional settings.⁴

To operationalize a response for incarcerated populations, three levels of preparedness need to be addressed: the virus should be delayed as much as possible from entering correctional settings; if it is already in circulation, it should be controlled; and jails and prisons should prepare to deal with a high burden of disease. The better the mitigation job done by legal, public health, and correctional health partnerships, the lighter the burden correctional facilities and their surrounding communities will bear. We have learned from other epidemics, such as the 1918 influenza pandemic, that nonpharmaceutical interventions are effective, but they have the greatest impact when implemented early.⁵

Therefore, we believe that we need to prepare now, by “decarcerating,” or releasing, as many people as possible, focusing on those who are least likely to commit additional crimes, but also on the elderly and infirm; urging police and courts to immediately suspend arresting and sentencing people, as much as possible, for low-level crimes and misdemeanors; isolating and separating incarcerated persons who are infected and those who are under investigation for possible infection from the general prison population; hospitalizing those who are seriously ill; and identifying correctional staff and health care providers who became infected early and have recovered,

who can help with custodial and care efforts once they have been cleared, since they may have some degree of immunity and severe staff shortages are likely.

All these interventions will help to flatten the curve of Covid-19 cases among incarcerated populations and limit the impact of transmission both inside correctional facilities and in the community after incarcerated people are released. Such measures will also reduce the burden on the correctional system in terms of stabilizing and transferring critically ill patients, as well as the burden on the community health care system to which such patients will be sent. Each person needlessly infected in a correctional setting who develops severe illness will be one too many.

Beyond federal, state, and local action, we need to consider the impact of correctional facilities in the global context. The boundaries between communities and correctional institutions are porous, as are the borders between countries in the age of mass human travel. Despite security at nearly every nation’s border, Covid-19 has appeared in practically all countries. We can’t expect to find sturdier barriers between correctional institutions and their surrounding communities in any affected country. Thus far, we have witnessed a spectrum of epidemic responses from various countries when it comes to correctional institutions. Iran, for example, orchestrated the controlled release of more than 70,000 prisoners, which may help “bend the curve” of the Iranian epidemic. Conversely, failure to calm incarcerated populations in Italy led to widespread rioting in Italian prisons. Reports have also emerged of in-

carceration of exposed persons for violating quarantine, a practice that will exacerbate the very problem we are trying to mitigate. To respond to this global crisis, we need to consider prisons and jails as reservoirs that could lead to epidemic resurgence if the epidemic is not adequately addressed in these facilities everywhere.

As with general epidemic preparedness, the Covid-19 pandemic will teach us valuable lessons for preparedness in correctional settings. It will also invariably highlight the injustice and inequality in the United States that are magnified in the criminal justice system. As U.S. criminal justice reform continues to unfold, emerging communicable diseases and our ability to combat them need to be taken into account. To promote public health,

we believe that efforts to decarcerate, which are already under way in some jurisdictions, need to be scaled up; and associated reductions of incarcerated populations should be sustained. The interrelation of correctional-system health and public health is a reality not only in the United States but around the world.

Disclosure forms provided by the authors are available at NEJM.org.

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1. Kaebler D, Cowhig M. Correctional populations in the United States, 2016. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics, April 2018 (<https://www.bjs.gov/content/pub/pdf/cpus16.pdf>).
2. Lee AS, Berendes DM, Seib K, et al. Distribution of A(H1N1)pdm09 influenza vaccine: need for greater consideration of smaller jails. *J Correct Health Care* 2014;20: 228-39.
3. Maruschak LM, Berzofsky M, Unangst J. Medical problems of state and federal prisoners and jail inmates, 2011-12. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics, February 2015 (<https://www.bjs.gov/content/pub/pdf/mpsfpi1112.pdf>).
4. Kakimoto K, Kamiya H, Yamagishi T, Matsui T, Suzuki M, Wakita T. Initial investigation of transmission of COVID-19 among crew members during quarantine of a cruise ship — Yokohama, Japan, February 2020. *MMWR Morb Mortal Wkly Rep* 2020; 69:312-3.
5. Hatchett RJ, Mecher CE, Lipsitch M. Public health interventions and epidemic intensity during the 1918 influenza pandemic. *Proc Natl Acad Sci USA* 2007;104:7582-7.

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